

amended to recite that surfaces of the first and second diffusion prevention films which are adjacent to the capacitor insulating film are both flat.

For example, as shown in Figure 2, a surface of the first diffusion prevention film 14 which is adjacent to the capacitor insulating film 16 is flat. The same is true for the second diffusion prevention film. Further, Applicants note if the surfaces of the diffusion film are sinuous, the diffusion prevention capability of the curve parts drops and the advantages of the present invention cannot be sufficiently obtained.

The outstanding Office Action states Alers et al teach the claimed invention. However, Applicants note the capacitor in Alers et al is not flat, but rather the capacitor has a sinuous shape. Further, the films in Alers et al 44 and 48 (which correspond to the diffusion prevention films of the present invention) are also sinuous. Therefore, with the capacitor disclosed in Alers et al, diffusion of atoms from wiring 34 and 50 to the capacitor insulating film 46 cannot be sufficiently prevented.

In addition, Applicants note that the present invention is used as an analog capacitor disposed in a metal layer. In such a case, the structure of the capacitor is flat. However, the capacitor disclosed by Alers et al is not used as an analog capacitor, and thus the structure of the capacitor is not flat.

Accordingly, it is respectfully submitted that independent Claim 1 and each of the claims depending therefrom are allowable.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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IN THE TITLE

Please delete the title in its entirety and substitute therefor:

--A MIM CAPACITOR HAVING FLAT DIFFUSION PREVENTION FILMS--.

IN THE CLAIMS

Please amend Claim 1 to read as follows:

--1. (Amended) A MIM capacitor comprising:

first and second electrodes formed from a metal material;

a capacitor insulating film;

a first diffusion prevention film interposed between said capacitor insulating film and  
said first electrode to prevent diffusion of atoms constituting the metal material; and

a second diffusion prevention film interposed between said capacitor insulating film  
and said second electrode to prevent diffusion of atoms constituting the metal material;

wherein surfaces of said first and second diffusion prevention films which are  
adjacent to said capacitor insulating film are both flat.--